European Journal of Soil Science, December 2003, **54**, 819–821

Author index

Abbaspour, K.C. *see* Sonnleitner, M.A.
Agostini, F.A. *see* Smith, J.U.
Aita, C. *see* Garnier, P.
Alberto, M.C. *see* Kirk, G.J.D.
Andreux, F. *see* Jolivet, C.
Antonino, A.C.D. *see* Hammecker, C.
Arrouays, D. *see* Jolivet, C.
Ascher, J. *see* Nannipieri, P.
Atkinson, D., Black, K.E., Forbes, P.J., Hooker, J.E., Baddeley, J.A. & Watson, C.A. The influence of arbuscular mycorrhizal colonization and environment on root development in soil, 751

Baddeley, J.A. *see* Atkinson, D.
Bailey, M.J. *see* Johnson, D.
Balesdent, J. *see* Poirier, N.
Ball, T. *see* Smith, K.A.
Bariac, T. *see* Ribolzi, O.
Bataillard, P., Cambier, P. & Picot, C. Short-term transformations of lead and cadmium compounds in soil after contamination, 365
Baveye, P. *see* Dathe, A.
Becquer, T. *see* Duwig, C.
Berthelin, J. *see* Stemmler, S.J.
Bird, N.R.A. & Perrier, E.M.A. The pore–solid fractal model of soil density scaling, 467
Black, K.E. *see* Atkinson, D.
Boivin, P. *see* Cheverry, C.
Boivin, P. *see* Hammecker, C.
Booth, R.E. *see* Johnson, D.
Bricquet, J.P. *see* Janeau, J.L.
Broos, K. *see* Degryse, F.
Bruggenwert, M.G.M. *see* Janssen, R.P.T.
Bühler, S., Oberson, A., Sinaj, S., Friesen, D.K. & Frossard, E. Isotope methods for assessing plant available phosphorus in acid tropical soils, 605
Bulcke, R. *see* Seghers, D.
Buurman, P. *see* Wattel-Koekkoek, E.J.W.

Cairney, J.W.G. & Meharg, A.A. Ericoid mycorrhiza: a partnership that exploits harsh edaphic conditions, 735
Cambier, P. *see* Bataillard, P.
Carlyle, J.C. *see* Paul, K.I.
Casenave, A. *see* Ribolzi, O.
Caul, S. *see* Wheatley, R.E.
Ceccherini, M.T. *see* Nannipieri, P.
Charlet, L. *see* Duwig, C.
Chenu, C. *see* Jolivet, C.
Cheverry, C., Perrier, E., Boivin, P., Vachaud, G. & Valentin, C. Michel Rieu (1943–1999): his vision and his legacy, 439
Clothier, B.E. *see* Duwig, C.
Conen, F. *see* Smith, K.A.
Cosandey, A-C., Maitre, V. & Guenat, C. Temporal denitrification patterns in different horizons of two riparian soils, 25
Cosenza, P., Guérin, R. & Tabbagh, A. Relationship between thermal conductivity and water content of soils using numerical modelling, 581
Crabb, D. *see* Wheatley, R.E.
Cremers, A. *see* Vandenhove, H.

Daniell, T.J. *see* Wheatley, R.E.
Dathe, A. & Baveye, P. Dependence of the surface fractal dimension of soil pores on image resolution and magnification, 453
Degryse, F., Broos, K., Smolders, E. & Merckx, R. Soil solution concentration of Cd and Zn can be predicted with a $CaCl_2$ soil extract, 149
Delgado, G. *see* Delgado, R.
Delgado, R., Martin-Garcia, J.M., Oyonarte, C. & Delgado, G. Genesis of the *terrae rossae* of the Sierra Gádor (Andalusia, Spain), 1
Delhoume, J.P. *see* Ribolzi, O.
Delvaux, B. *see* Gerin, P.A.
Denaix, L. *see* Latrille, C.
De Neve, S., Hartmann, R. & Hofman, G. Temperature effects on N mineralization: changes in soil solution composition and determination of temperature coefficients by TDR, 49
Derenne, S. *see* Poirier, N.
Dobbie, K.E. *see* Smith, K.A.
Dubé, J.-S., Winiarski, T. & Galvez-Cloutier, R. Effect of the initial soil water saturation on the behaviour of a mixed LNAPL and heavy metal contaminated glaciofluvial deposit, 517
Ducloux, J. *see* Ribolzi, O.
Duwig, C., Becquer, T., Charlet, L. & Clothier, B.E. Estimation of nitrate retention in a Ferralsol by a transient-flow method, 505

Ellerbrock, R. *see* Ludwig, B.

Flessa, H. *see* Ludwig, B.
Forbes, P.J. *see* Atkinson, D.
Friesen, D.K. *see* Bühler, S.
Frossard, E. *see* Bühler, S.
Frossard, E. *see* Huguenin-Elie, O.

Galvez-Cloutier, R. *see* Dubé, J.-S.
García, C. *see* Moreno, J.L.
García-González, M.T. *see* Garrido, F.
Garnier, P., Néel, C., Aita, C., Recous, S., Lafolie, F. & Mary, B. Modelling carbon and nitrogen dynamics in a bare soil with and without straw incorporation, 555
Garrido, F., Illera, V., Vizcayno, C. & García-González, M.T. Evaluation of industrial by-products as soil acidity amendments: chemical and mineralogical implications, 411
Genet, M.J. *see* Gerin, P.A.
Gerin, P.A., Genet, M.J., Herbillon, A.J. & Delvaux, B. Surface analysis of soil material by X-ray photoelectron spectroscopy, 589
Godbold, D.L. *see* van Hees, P.A.W.
Govers, G. *see* Van Oost, K.
Gray, C.W., McLaren, R.G. & Roberts, A.H.C. Cadmium leaching from some New Zealand pasture soils, 159
Gregorich, E.G. *see* Hopkins, D.W.
Griffiths, B.S. *see* Wheatley, R.E.
Grime, J.P. *see* Johnson, D.
Guenat, C. *see* Cosandey, A-C.
Guérin, R. *see* Cosenza, P.
Guggenberger, G. *see* Kaiser, K.
Gustafsson, J.P. & van Schaik, J.W.J. Cation binding in a mor layer: batch experiments and modelling, 295

Hammecker, C., Antonino, A.C.D., Maeght, J.L. & Boivin, P. Experimental and numerical study of water flow in soil under irrigation in northern Senegal: evidence of air entrapment, 491
Harris, J.A. Measurements of the soil microbial community for estimating the success of restoration, 801
Hartmann, R. *see* De Neve, S.
Heckrath, G. *see* Van Oost, K.
Herbillon, A.J. *see* Gerin, P.A.
Hernández, T. *see* Moreno, J.L.
Hirsch, P.R. *see* O'Flaherty, S.M.
Hofman, G. *see* De Neve, S.
Hooker, J.E. *see* Atkinson, D.
Hopkins, D.W. & Gregorich, E.G. Detection and decay of the *Bt* endotoxin in soil from a field trial with genetically modified maize, 793
Hopkins, D.W. *see* Killham, K.
Huguenin-Elie, O., Kirk, G.J.D. & Frossard, E. Phosphorus uptake by rice from soil that is flooded, drained or flooded then drained, 77

© 2003 Blackwell Publishing Ltd

Illera, V. *see* Garrido, F.

Janeau, J.L., Bricquet, J.P., Planchon, O. & Valentin, C. Soil crusting and infiltration on steep slopes in northern Thailand, 543
Janssen, R.P.T., Bruggenwert, M.G.M. & van Riemsdijk, W.H. Effect of Al hydroxide polymers on cation exchange of montmorillonite, 335
Janssen, R.P.T., Bruggenwert, M.G.M. & van Riemsdijk, W.H. Zinc ion adsorption on montmorillonite–Al hydroxide polymer systems, 347
Jentschke, G. *see* van Hees, P.A.W.
John, B. *see* Ludwig, B.
Johnson, A., Roy, I.M., Matthews, G.P. & Patel, D. An improved simulation of void structure, water retention and hydraulic conductivity in soil with the Pore-Cor three-dimensional network, 477
Johnson, D., Booth, R.E., Whiteley, A.S., Bailey, M.J., Read, D.J., Grime, J.P. & Leake, J.R. Plant community composition affects the biomass, activity and diversity of microorganisms in limestone grassland soil, 671
Jolivet, C., Arrouays, D., Lévêque, J., Andreux, F. & Chenu, C. Organic carbon dynamics in soil particle-size separates of sandy Spodosols when forest is cleared for maize cropping, 257
Jones, D.L. *see* van Hees, P.A.W.

Kacimov, A.R. *see* Perret, J.S.
Kaiser, K. & Guggenberger, G. Mineral surfaces and soil organic matter, 219
Kaiser, M. *see* Ludwig, B.
Kalbitz, K. *see* Schwesig, D.
Kandeler, E. *see* Poll, C.
Kandeler, E. *see* Tscherko, D.
Kaupenjohann, M. *see* Lang, F.
Kerry, B.R. *see* O'Flaherty, S.M.
Khanna, P.K. *see* Paul, K.I.
Killham, K., Webster, E.A. & Hopkins, D.W. Soil biology – new horizons, 651
Kinraide, T.B. Toxicity factors in acidic forest soils: attempts to evaluate separately the toxic effects of excessive Al^{3+} and H^+ and insufficient Ca^{2+} and Mg^{2+} upon root elongation, 323
Kirk, G.J.D., Solivas, J.L. & Alberto, M.C. Effects of flooding and redox conditions on solute diffusion in soil, 617
Kirk, G.J.D. *see* Huguenin-Elie, O.
Kitunen, V. *see* Suominen, K.
Kögel-Knabner, I. *see* Leifeld, J.
Kögel-Knabner, I. *see* Prietzel, J.
Kretzschmar, R. *see* Voegelin, A.

Lafolie, F. *see* Garnier, P.
Lamy, I. *see* Latrille, C.
Landi, L. *see* Nannipieri, P.
Lang, F. & Kaupenjohann, M. Effect of dissolved organic matter on the precipitation and mobility of the lead compound chloropyromorphite in solution, 139
Largeau, C. *see* Poirier, N.
Lark, R.M. Two robust estimators of the cross-variogram for multivariate geostatistical analysis of soil properties, 187
Latrille, C., Denaix, L. & Lamy, I. Interaction of copper and zinc with allophane and organic matter in the B horizon of an Andosol, 357
Lavelle, P. *see* Loranger, G.
Leake, J.R. *see* Johnson, D.
Leifeld, J. & Kögel-Knabner, I. Microaggregates in agricultural soils and their size distribution determined by X-ray attenuation, 167
Lévêque, J. *see* Jolivet, C.
Liikanen, A. *see* Maljanen, M.
Loranger, G., Ponge, J.F. & Lavelle, P. Humus forms in two secondary semi-evergreen tropical forests, 17
Loveland, P. Editorial, 649
Loveland, P. & Schwarz, E. Announcement – Early online publication, 653
Ludwig, B., John, B., Ellerbrock, R., Kaiser, M. & Flessa, H. Stabilization of carbon from maize in a sandy soil in a long-term experiment, 117

Madrid, L. *see* Rodriguez-Rubio, P.
Maeght, J.L. *see* Hammecker, C.
Maître, V. *see* Cosandey, A-C.
Maljanen, M., Liikanen, A., Silvola, J. & Martikainen, P.J. Measuring N_2O emissions from organic soils by closed chamber or soil/snow N_2O gradient methods, 625
Maqueda, C. *see* Rodriguez-Rubio, P.
Mariotti, A. *see* Poirier, N.
Martikainen, P.J. *see* Maljanen, M.
Martin-Garcia, J.M. *see* Delgado, R.
Mary, B. *see* Garnier, P.
Massheder, J. *see* Smith, K.A.
Massiot, D. *see* Poirier, N.
Matthews, G.P. *see* Johnson, A.
Matzner, E. *see* Schwesig, D.
McLaren, R.G. *see* Gray, C.W.
Meharg, A.A. *see* Cairney, J.W.G.
Merckx, R. *see* Degryse, F.
Moore, T.R. *see* Turunen, J.
Moreno, J.L., Garcia, C. & Hernández, T. Toxic effect of cadmium and nickel on soil enzymes and the influence of adding sewage sludge, 377
Morillo, E. *see* Rodriguez-Rubio, P.
Morriss, A.W.J. *see* Semple, K.T.

Nannipieri, P., Ascher, J., Ceccherini, M.T., Landi, L., Pietramellara, G. & Renella, G. Microbial diversity and soil functions, 655
Néel, C. *see* Garnier, P.
Neuhäusler, U. *see* Prietzel, J.

Oades, J.M. *see* Smernik, R.J.
Oberson, A. *see* Bühler, S.
O'Connell, A.M. *see* Paul, K.I.
O'Flaherty, S.M., Hirsch, P.R. & Kerry, B.R. The influence of the root-knot nematode *Meloidogyne incognita*, the nematicide aldicarb and the nematophagous fungus *Pochonia chlamydosporia* on heterotrophic bacteria in soil and the rhizosphere, 759
Oyonarte, C. *see* Delgado, R.

Pachepsky, Y.A. & Rawls, W.J. Soil structure and pedotransfer functions, 443
Patel, D. *see* Johnson, A.
Paterson, E. Importance of rhizodeposition in the coupling of plant and microbial productivity, 741
Paton, G.I. *see* Semple, K.T.
Paul, K.I., Polglase, P.J., O'Connell, A.M., Carlyle, J.C., Smethurst, P.J. & Khanna, P.K. Defining the relation between soil water content and net nitrogen mineralization, 39
Perret, J.S., Prasher, S.O. & Kacimov, A.R. Mass fractal dimension of soil macropores using computed tomography: from the box-counting to the cube-counting algorithm, 569
Perrier, E. *see* Cheverry, C.
Perrier, E.M.A. *see* Bird, N.R.A.
Picot, C. *see* Bataillard, P.
Pietramellara, G. *see* Nannipieri, P.
Planchon, O. *see* Janeau, J.L.
Poesen, J. *see* Van Oost, K.
Poirier, N., Derenne, S., Balesdent, J., Mariotti, A., Massiot, D. & Largeau, C. Isolation and analysis of the non-hydrolysable fraction of a forest soil and an arable soil (Lacadée, southwest France), 243
Polglase, P.J. *see* Paul, K.I.
Poll, C., Thiede, A., Wermbter, N., Sessitsch, A. & Kandeler, E. Micro-scale distribution of microorganisms and microbial enzyme activities in a soil with long-term organic amendment, 715
Ponge, J.F. *see* Loranger, G.
Ponge, J.F. *see* Sadaka, N.
Prasher, S.O. *see* Perret, J.S.
Prietzel, J., Thieme, J., Neuhäusler, U., Susini, J. & Kögel-Knabner, I. Speciation of sulphur in soils and soil particles by X-ray spectromicroscopy, 423

Quine, T.A. *see* Van Oost, K.

Rawls, W.J. *see* Pachepsky, Y.A.
Read, D.J. *see* Johnson, D.
Recous, S. *see* Garnier, P.
Reheul, D. *see* Seghers, D.
Renella, G. *see* Nannipieri, P.
Rey, A. *see* Smith, K.A.
Ribolzi, O., Bariac, T., Casenave, A., Delhoume, J.P., Ducloux, J. & Vallès, V. Hydrochemistry of runoff and subsurface flow within Sahelian microdunes, 531
Richter, A. *see* Tscherko, D.
Richter, G.M. *see* Smith, J.U.
Ritz, K. *see* Wheatley, R.E.
Roberts, A.H.C. *see* Gray, C.W.
Rodriguez-Rubio, P., Morillo, E., Madrid, L., Undabeytia, T. & Maqueda, C. Retention of copper by a calcareous soil and its textural fractions: influence of amendment with two agroindustrial residues, 401
Roy, I.M. *see* Johnson, A.
Rustemeier, J. *see* Tscherko, D.

Sadaka, N. & Ponge, J.F. Climatic effects on soil trophic networks and the resulting humus profiles in holm oak (*Quercus rotundifolia*) forests in the High Atlas of Morocco as revealed by correspondence analysis, 767
Schulin, R. *see* Sonnleitner, M.A.
Schwarz, E. *see* Loveland, P.
Schwesig, D., Kalbitz, K. & Matzner, E. Effects of aluminium on the mineralization of dissolved organic carbon derived from forest floors, 311
Seghers, D., Bulcke, R., Reheul, D., Siciliano, S.D., Top, E.M. & Verstraete, W. Pollution induced community tolerance (PICT) and analysis of 16S rRNA genes to evaluate the long-term effects of herbicides on methanotrophic communities in soil, 679
Semple, K.T., Morriss, A.W.J. & Paton, G.I. Bioavailability of hydrophobic organic contaminants in soils: fundamental concepts and techniques for analysis, 809
Sessitsch, A. *see* Poll, C.
Siciliano, S.D. *see* Seghers, D.
Silvola, J. *see* Maljanen, M.
Sinaj, S. *see* Bühler, S.
Smernik, R.J. & Oades, J.M. Spin accounting and RESTORE – two new methods to improve quantitation in solid-state ^{13}C NMR analysis of soil organic matter, 103
Smethurst, P.J. *see* Paul, K.I.
Smith, J.U., Smith, P., Richter, G.M., Agostini, F.A. & Welham, S.J. Testing the adequacy of measured data for evaluating nitrogen turnover models by the dot-to-dot method, 175
Smith, K.A., Ball, T., Conen, F., Dobbie, K.E., Massheder, J. & Rey, A. Exchange of greenhouse gases between soil and atmosphere: interactions of soil physical factors and biological processes, 779
Smith, P. *see* Smith, J.U.
Smolander, A. *see* Suominen, K.
Smolders, E. *see* Degryse, F.
Smolders, E. *see* Vandenhove, H.
Solivas, J.L. *see* Kirk, G.J.D.
Sonnleitner, M.A., Abbaspour, K.C. & Schulin, R. Hydraulic and transport properties of the plant–soil system estimated by inverse modelling, 127

Stemmler, S.J. & Berthelin, J. Microbial activity as a major factor in the mobilization of iron in the humid tropics, 725
Suominen, K., Kitunen, V. & Smolander, A. Characteristics of dissolved organic matter and phenolic compounds in forest soils under silver birch (*Betula pendula*), Norway spruce (*Picea abies*) and Scots pine (*Pinus sylvestris*), 287
Susini, J. *see* Prietzel, J.
Szajdak, L. *see* Szponar, A.
Szponar, A. & Szajdak, L. Amino acids in Quaternary soil horizons from southwest Poland, 237

Tabbagh, A. *see* Cosenza, P.
Thiede, A. *see* Poll, C.
Thieme, J. *see* Prietzel, J.
Top, E.M. *see* Seghers, D.
Tscherko, D., Rustemeier, J., Richter, A., Wanek, W. & Kandeler, E. Functional diversity of the soil microflora in primary succession across two glacier forelands in the Central Alps, 685
Turunen, J. & Moore, T.R. Controls on carbon accumulation and storage in the mineral subsoil beneath peat in Lakkasuo mire, central Finland, 279

Undabeytia, T. *see* Rodriguez-Rubio, P.

Vachaud, G. *see* Cheverry, C.
Valentin, C. *see* Cheverry, C.
Valentin, C. *see* Janeau, J.L.
Vallès, V. *see* Ribolzi, O.
van Breemen, N. *see* Wattel-Koekkoek, E.J.W.
Vandenhove, H., Smolders, E. & Cremers, A. Potassium bentonites reduce radiocaesium availability to plants, 91
van der Plicht, J. *see* Wattel-Koekkoek, E.J.W.
van Hees, P.A.W., Godbold, D.L., Jentschke, G. & Jones, D.L. Impact of ectomycorrhizas on the concentration and biodegradation of simple organic acids in a forest soil, 697
Van Muysen, W. *see* Van Oost, K.
Van Oost, K., Van Muysen, W., Govers, G., Heckrath, G., Quine, T.A. & Poesen, J. Simulation of the redistribution of soil by tillage on complex topographies, 63
van Riemsdijk, W.H. *see* Janssen, R.P.T.
van Schaik, J.W.J. *see* Gustafsson, J.P.
Verstraete, W. *see* Seghers, D.
Vizcayno, C. *see* Garrido, F.
Voegelin, A. & Kretzschmar, R. Modelling sorption and mobility of cadmium and zinc in soils with scaled exchange coefficients, 387

Wanek, W. *see* Tscherko, D.
Watson, C.A. *see* Atkinson, D.
Wattel, E. *see* Wattel-Koekkoek, E.J.W.
Wattel-Koekkoek, E.J.W., Buurman, P., van der Plicht, J., Wattel, E. & van Breemen, N. Mean residence time of soil organic matter associated with kaolinite and smectite, 269
Webster, E.A. *see* Killham, K.
Webster, R. Let's re-write the scientific paper, 215
Welham, S.J. *see* Smith, J.U.
Wermbter, N. *see* Poll, C.
Wheatley, R.E., Caul, S., Crabb, D., Daniell, T.J., Griffiths, B.S. & Ritz, K. Microbial population dynamics related to temporal variations in nitrification in three arable fields, 707
Whiteley, A.S. *see* Johnson, D.
Winiarski, T. *see* Dubé, J.-S.

European Journal of Soil Science, December 2003, **54**, 823–826

Subject index

acid tropical soils, isotope methods for assessing plant available phosphorus in, 605
acidic forest soils, toxicity factors in: attempts to evaluate separately the toxic effects of excessive Al^{3+} and H^{+} and insufficient Ca^{2+} and Mg^{2+} upon root elongation, 323
agricultural soils, microaggregates in, and microaggregate size distribution determined by X-ray attenuation, 167
agroindustrial residues, influence of amendment with, on retention of copper by a calcareous soil and its textural fractions, 401
air entrapment, evidence of: experimental and numerical study of water flow in soil under irrigation in northern Senegal, 491
Al hydroxide polymers, effect of, on cation exchange of montmorillonite, 335
aldicarb (nematicide), the root-knot nematode *Meloidogyne incognita* and the nematophagous fungus *Pochonia chlamydosporia*, influence of, on heterotrophic bacteria in soil and the rhizosphere, 759
aluminium, effects of, on the mineralization of dissolved organic carbon derived from forest floors, 311
amino acids in Quaternary soil horizons from southwest Poland, 237
Andosol, interaction of copper and zinc with allophane and organic matter in the B horizon of an, 357
Announcement – Early online publication, 653
arable fields, microbial population dynamics related to temporal variations in nitrification in three, 707
arbuscular mycorrhizal colonization and environment, influence of, on root development in soil, 751

B horizon of an Andosol, interaction of copper and zinc with allophane and organic matter in the, 357
bare soil, modelling carbon and nitrogen dynamics in a, with and without straw incorporation, 555
bioavailability of hydrophobic organic contaminants in soils: fundamental concepts and techniques for analysis, 809
Book reviews, 203, 633
box-counting to cube-counting algorithm: mass fractal dimension of soil macropores using computed tomography, 569
Bt endotoxin, detection and decay of, in soil from a field trial with genetically modified maize, 793

$CaCl_2$ soil extract, soil solution concentration of Cd and Zn can be predicted with a, 149
cadmium
  and lead compounds, short-term transformations of, in soil after contamination, 365
  and nickel, toxic effect of, on soil enzymes and the influence of adding sewage sludge, 377
  and zinc in soils with scaled exchange coefficients, modelling sorption and mobility of, 387
  leaching from some New Zealand pasture soils, 159
calcareous soil and its textural fractions, retention of copper by: influence of amendment with two agroindustrial residues, 401
carbon
  accumulation and storage in the mineral subsoil beneath peat in Lakkasuo mire, central Finland, controls on, 279
  and nitrogen dynamics, modelling, in a bare soil with and without straw incorporation, 555
  from maize, stabilization of, in a sandy soil in a long-term experiment, 117
cation binding in a mor layer: batch experiments and modelling, 295
cation exchange of montmorillonite, effect of Al hydroxide polymers on, 335
Cd and Zn, soil solution concentration of, can be predicted with a $CaCl_2$ soil extract, 149
Central Alps, functional diversity of the soil microflora in primary succession across two glacier forelands in the, 685
changes in soil solution composition: temperature effects on N mineralization, 49
characteristics of dissolved organic matter and phenolic compounds in forest soils under silver birch (*Betula pendula*), Norway spruce (*Picea abies*) and Scots pine (*Pinus sylvestris*), 287
chloropyromorphite in solution, effect of dissolved organic matter on the precipitation and mobility of, 139
climatic effects on soil trophic networks and the resulting humus profiles in holm oak (*Quercus rotundifolia*) forests in the High Atlas of Morocco as revealed by correspondence analysis, 767
closed chamber or soil/snow N_2O gradient methods, measuring N_2O emissions from organic soils by, 625
complex topographies, simulation of the redistribution of soil by tillage on, 63
computed tomography, mass fractal dimension of soil macropores using: from the box-counting to the cube-counting algorithm, 569
contamination, short-term transformations of lead and cadmium compounds in soil after, 365
controls on carbon accumulation and storage in the mineral subsoil beneath peat in Lakkasuo mire, central Finland, 279
copper
  retention of, by a calcareous soil and its textural fractions: influence of amendment with two agroindustrial residues, 401
  and zinc, interaction of, with allophane and organic matter in the B horizon of an Andosol, 357
coupling of plant and microbial productivity, importance of rhizodeposition in, 741
cross-variogram, two robust estimators of the, for multivariate geostatistical analysis of soil properties, 187

defining the relation between soil water content and net nitrogen mineralization, 39
denitrification patterns over time in different horizons of two riparian soils, 25
dependence of the surface fractal dimension of soil pores on image resolution and magnification, 453
detection and decay of the *Bt* endotoxin in soil from a field trial with genetically modified maize, 793
determination of temperature coefficients by TDR: temperature effects on N mineralization, 49
dissolved organic carbon derived from forest floors, effects of aluminium on the mineralization of, 311
dissolved organic matter and phenolic compounds, characteristics of, in forest soils under silver birch (*Betula pendula*), Norway spruce (*Picea abies*) and Scots pine (*Pinus sylvestris*), 287
dot-to-dot method, testing the adequacy of measured data for evaluating nitrogen turnover models by the, 175

ectomycorrhizas, impact of, on the concentration and biodegradation of simple organic acids in a forest soil, 697
Editorial, 649
effect of Al hydroxide polymers on cation exchange of montmorillonite, 335
effect of dissolved organic matter on the precipitation and mobility of the lead compound chloropyromorphite in solution, 139
effect of the initial soil water saturation on the behaviour of a mixed LNAPL and heavy metal contaminated glaciofluvial deposit, 517
effects of aluminium on the mineralization of dissolved organic carbon derived from forest floors, 311
effects of flooding and redox conditions on solute diffusion in soil, 617

© 2003 Blackwell Publishing Ltd

effects of herbicides on methanotropic communities in soil, pollution induced community tolerance (PICT) and analysis of 16S rRNA genes to evaluate the, 679
ericoid mycorrhiza: a partnership that exploits harsh edaphic conditions, 735
estimation of nitrate retention in a Ferralsol by a transient-flow method, 505
evaluation of industrial by-products as soil acidity amendments: chemical and mineralogical implications, 411
exchange of greenhouse gases between soil and atmosphere: interactions of soil physical factors and biological processes, 779
experimental and numerical study of water flow in soil under irrigation in northern Senegal: evidence of air entrapment, 491

Ferralsol, estimation of nitrate retention in a, by a transient-flow method, 505
Finland (central), controls on carbon accumulation and storage in the mineral subsoil beneath peat in Lakkasuo mire, 279
flooding and redox conditions, effects of, on solute diffusion in soil, 617
forest floors, effects of aluminium on the mineralization of dissolved organic carbon derived from, 311
forest soil, impact of ectomycorrhizas on the concentration and biodegradation of simple organic acids in a, 697
forest soils under silver birch (*Betula pendula*), Norway spruce (*Picea abies*) and Scots pine (*Pinus sylvestris*), characteristics of dissolved organic matter and phenolic compounds in, 287
functional diversity of the soil microflora in primary succession across two glacier forelands in the Central Alps, 685

genesis of the *terrae rossae* of the Sierra Gádor (Andalusia, Spain), 1
genetically modified maize, detection and decay of the *Bt* endotoxin in soil from a field trial with, 793
glacier forelands in the Central Alps, functional diversity of the soil microflora in primary succession across two, 685
glaciofluvial deposit, effect of the initial soil water saturation on the behaviour of a mixed LNAPL and heavy metal contaminated, 517
greenhouse gases, exchange of, between soil and atmosphere: interactions of soil physical factors and biological processes, 779

herbicides, pollution induced community tolerance (PICT) and analysis of 16S rRNA genes to evaluate the long-term effects of on methanotropic communities in soil, 679
heterotrophic bacteria in soil and the rhizosphere, influence of the root-knot nematode *Meloidogyne incognita*, the nematicide aldicarb and the nematophagous fungus *Pochonia chlamydosporia* on, 759
High Atlas of Morocco, climatic effects on soil trophic networks and the resulting humus profiles in holm oak (*Quercus rotundifolia*) forests in the, as revealed by correspondence analysis, 767
holm oak (*Quercus rotundifolia*) forests in the High Atlas of Morocco, climatic effects on soil trophic networks and the resulting humus profiles in, as revealed by correspondence analysis, 767
humid tropics, microbial activity as a major factor in the mobilization of iron in the, 725
humus forms in two secondary semi-evergreen tropical forests, 17
humus profiles in holm oak (*Quercus rotundifolia*) forests in the High Atlas of Morocco, climatic effects on soil trophic networks and, as revealed by correspondence analysis, 767
hydraulic and transport properties of the plant–soil system estimated by inverse modelling, 127
hydrochemistry of runoff and subsurface flow within Sahelian microdunes, 531
hydrophobic organic contaminants in soils, bioavailability of: fundamental concepts and techniques for analysis, 809

image resolution and magnification, dependence of the surface fractal dimension of soil pores on, 453
impact of ectomycorrhizas on the concentration and biodegradation of simple organic acids in a forest soil, 697
importance of rhizodeposition in the coupling of plant and microbial productivity, 741
improved simulation of void structure, water retention and hydraulic conductivity in soil with the Pore-Cor three-dimensional network, 477
industrial by-products as soil acidity amendments, evaluation of: chemical and mineralogical implications, 411
influence of arbuscular mycorrhizal colonization and environment on root development in soil, 751
influence of the root-knot nematode *Meloidogyne incognita*, the nematicide aldicarb and the nematophagous fungus *Pochonia chlamydosporia* on heterotrophic bacteria in soil and the rhizosphere, 759
initial soil water saturation, effect of, on the behaviour of a mixed LNAPL and heavy metal contaminated glaciofluvial deposit, 517
interaction of copper and zinc with allophane and organic matter in the B horizon of an Andosol, 357
interactions of soil physical factors and biological processes in exchange of greenhouse gases between soil and atmosphere, 779
inverse modelling, hydraulic and transport properties of the plant–soil system estimated by, 127
iron, mobilization of, in the humid tropics: microbial activity as a major factor in the, 725
isolation and analysis of the non-hydrolysable fraction of a forest soil and an arable soil (Lacadée, southwest France), 243
isotope methods for assessing plant available phosphorus in acid tropical soils, 605

kaolinite and smectite, mean residence time of soil organic matter associated with, 269

Lakkasuo mire, central Finland, controls on carbon accumulation and storage in the mineral subsoil beneath peat in, 279
lead and cadmium compounds, short-term transformations of, in soil after contamination, 365
Let's re-write the scientific paper, 215
Letters to the Editor, 211, 641
limestone grassland soil, plant community composition affects the biomass, activity and diversity of microorganisms in, 671
long-term organic amendment, micro-scale distribution of microorganisms and microbial enzyme activities in a soil with, 715

maize
  cropping, organic carbon dynamics in soil particle-size separates of sandy Spodosols when forest is cleared for, 257
  (genetically modified), detection and decay of the *Bt* endotoxin in soil from a field trial with, 793
  stabilization of carbon from, in a sandy soil in a long-term experiment, 117
mass fractal dimension of soil macropores using computed tomography: from the box-counting to the cube-counting algorithm, 569
mean residence time of soil organic matter associated with kaolinite and smectite, 269
measurements of the soil microbial community for estimating the success of restoration, 801
measuring N_2O emissions from organic soils by closed chamber or soil/snow N_2O gradient methods, 625
Meloidogyne incognita (root-knot nematode), the nematicide aldicarb and the nematophagous fungus *Pochonia chlamydosporia*, influence of, on heterotrophic bacteria in soil and the rhizosphere, 759
methanotropic communities in soil, pollution induced community tolerance (PICT) and analysis of 16S rRNA genes to evaluate the long-term effects of herbicides on, 679
Michel Rieu (1943–1999): his vision and his legacy, 439
microaggregates in agricultural soils and their size distribution determined by X-ray attenuation, 167
microbial activity as a major factor in the mobilization of iron in the humid tropics, 725
microbial community (soil), measurements of, for estimating the success of restoration, 801

microbial diversity and soil functions, 655
microbial population dynamics related to temporal variations in nitrification in three arable fields, 707
microorganisms and microbial enzyme activities, micro-scale distribution of, in a soil with long-term organic amendment, 715
microorganisms, biomass, activity and diversity of, in limestone grassland soil: plant community composition effects on, 671
micro-scale distribution of microorganisms and microbial enzyme activities in a soil with long-term organic amendment, 715
mineral surfaces and soil organic matter, 219
mineralization of dissolved organic carbon derived from forest floors, effects of aluminium on the, 311
mixed LNAPL and heavy metal contaminated glaciofluvial deposit, effect of the initial soil water saturation on the behaviour of a, 517
mobilization of iron in the humid tropics, microbial activity as a major factor in the, 725
modelling carbon and nitrogen dynamics in a bare soil with and without straw incorporation, 555
modelling sorption and mobility of cadmium and zinc in soils with scaled exchange coefficients, 387
montmorillonite, effect of Al hydroxide polymers on cation exchange of, 335
montmorillonite–Al hydroxide polymer systems, zinc ion adsorption on, 347
mor layer, cation binding in: batch experiments and modelling, 295
Morocco (High Atlas), climatic effects on soil trophic networks and the resulting humus profiles in holm oak (*Quercus rotundifolia*) forests in the, as revealed by correspondence analysis, 767
multivariate geostatistical analysis of soil properties, two robust estimators of the cross-variogram for, 187
mycorrhiza, ericoid: a partnership that exploits harsh edaphic conditions, 735

N mineralization, temperature effects on: changes in soil solution composition and determination of temperature coefficients by TDR, 49
N_2O emissions from organic soils, measuring by closed chamber or soil/snow N_2O gradient methods, 625
nematicide aldicarb, the root-knot nematode *Meloidogyne incognita* and the nematophagous fungus *Pochonia chlamydosporia*, influence of, on heterotrophic bacteria in soil and the rhizosphere, 759
nematophagous fungus *Pochonia chlamydosporia*, the root-knot nematode *Meloidogyne incognita* and the nematicide aldicarb, influence of, on heterotrophic bacteria in soil and the rhizosphere, 759
net nitrogen mineralization and soil water content, defining the relation between, 39
new methods to improve quantitation in solid-state ^{13}C NMR analysis of soil organic matter – spin accounting and RESTORE, 103
New Zealand pasture soils, cadmium leaching from some, 159
nickel and cadmium, toxic effect of, on soil enzymes and the influence of adding sewage sludge, 377
nitrate retention in a Ferralsol, estimation by a transient-flow method, 505
nitrification, temporal variations in, related to microbial population dynamics in three arable fields, 707
nitrogen and carbon dynamics, modelling, in a bare soil with and without straw incorporation, 555
nitrogen mineralization (net), defining the relation between soil water content and, 39
nitrogen turnover models, testing the adequacy of measured data for evaluating, by the dot-to-dot method, 175
non-hydrolysable fraction of a forest soil and an arable soil (Lacadée, southwest France), isolation and analysis of, 243
numerical modelling, relationship between thermal conductivity and water content of soils using, 581

organic acids (simple) in a forest soil, impact of ectomycorrhizas on the concentration and biodegradation of, 697
organic carbon (dissolved), derived from forest floors, effects of aluminium on the mineralization of, 311
organic carbon dynamics in soil particle-size separates of sandy Spodosols when forest is cleared for maize cropping, 257
organic contaminants in soils, bioavailability of hydrophobic: fundamental concepts and techniques for analysis, 809
organic matter
  and allophane in the B horizon of an Andosol, interaction of copper and zinc with, 357
  effect of dissolved, on the precipitation and mobility of the lead compound chloropyromorphite in solution, 139
organic soils, measuring N_2O emissions from, by closed chamber or soil/snow N_2O gradient methods, 625

pedotransfer functions and soil structure, 443
phenolic compounds and dissolved organic matter, characteristics of, in forest soils under silver birch (*Betula pendula*), Norway spruce (*Picea abies*) and Scots pine (*Pinus sylvestris*), 287
phosphorus
  (plant available) in acid tropical soils, isotope methods for assessing, 605
  uptake by rice from soil that is flooded, drained or flooded then drained, 77
plant and microbial productivity, importance of rhizodeposition in the coupling of, 741
plant available phosphorus in acid tropical soils, isotope methods for assessing, 605
plant community composition affects the biomass, activity and diversity of microorganisms in limestone grassland soil, 671
plant–soil system, hydraulic and transport properties of, estimated by inverse modelling, 127
Pochonia chlamydosporia (nematophagous fungus), the root-knot nematode *Meloidogyne incognita* and the nematicide aldicarb, influence of, on heterotrophic bacteria in soil and the rhizosphere, 759
Poland (southwest), amino acids in Quaternary soil horizons from, 237
pollution induced community tolerance (PICT) and analysis of 16S rRNA genes to evaluate the long-term effects of herbicides on methanotropic communities in soil, 679
Pore-Cor three-dimensional network, improved simulation of void structure, water retention and hydraulic conductivity in soil with the, 477
pore–solid fractal model of soil density scaling, 467
potassium bentonites reduce radiocaesium availability to plants, 91
precipitation and mobility of the lead compound chloropyromorphite in solution, effect of dissolved organic matter on the, 139
primary succession across two glacier forelands in the Central Alps, functional diversity of the soil microflora in, 685

quantitation in solid-state 13C NMR analysis of soil organic matter, two new methods to improve (spin accounting and RESTORE), 103
Quaternary soil horizons from southwest Poland, amino acids in, 237
Quercus rotundifolia (holm oak) forests in the High Atlas of Morocco, climatic effects on soil trophic networks and the resulting humus profiles in, as revealed by correspondence analysis, 767

radiocaesium availability to plants, potassium bentonites reduce, 91
redistribution of soil by tillage on complex topographies, simulation of the, 63
redox conditions and flooding, effects of, on solute diffusion in soil, 617
Referees for 2002, 435
relation between soil water content and net nitrogen mineralization, defining the, 39
relationship between thermal conductivity and water content of soils using numerical modelling, 581
restoration, measurements of the soil microbial community for estimating the success of, 801

retention of copper by a calcareous soil and its textural fractions: influence of amendment with two agroindustrial residues, 401
rhizodeposition, importance of, in the coupling of plant and microbial productivity, 741
rice, phosphorus uptake by, from soil that is flooded, drained or flooded then drained, 77
Rieu, Michel (1943–1999): his vision and his legacy, 439
riparian soils, temporal denitrification patterns in different horizons of two, 25
robust estimators of the cross-variogram for multivariate geostatistical analysis of soil properties, 187
16S rRNA genes, analysis of, and pollution induced community tolerance (PICT) to evaluate the long-term effects of herbicides on methanotropic communities in soil, 679
root development in soil, influence of arbuscular mycorrhizal colonization and environment on, 751
root elongation, attempts to evaluate separately the toxic effects of excessive Al^{3+} and H^+ and insufficient Ca^{2+} and Mg^{2+} upon: toxicity factors in acidic forest soils, 323
root-knot nematode *Meloidogyne incognita*, the nematicide aldicarb and the nematophagous fungus *Pochonia chlamydosporia*, influence of, on heterotrophic bacteria in soil and the rhizosphere, 759
runoff and subsurface flow within Sahelian microdunes, hydrochemistry of, 531

Sahelian microdunes, hydrochemistry of runoff and subsurface flow within, 531
scaled exchange coefficients, modelling sorption and mobility of cadmium and zinc in soils with, 387
Senegal (northern), experimental and numerical study of water flow in soil under irrigation in: evidence of air entrapment, 491
sewage sludge, toxic effect of cadmium and nickel on soil enzymes and the influence of adding, 377
short-term transformations of lead and cadmium compounds in soil after contamination, 365
Sierra Gádor (Andalusia, Spain), genesis of the *terrae rossae* of the, 1
simulation of the redistribution of soil by tillage on complex topographies, 63
smectite and kaolinite, mean residence time of soil organic matter associated with, 269
soil acidity amendments, evaluation of industrial by-products as: chemical and mineralogical implications, 411
Soil biology – new horizons (Introduction to themed issue), 651
soil crusting and infiltration on steep slopes in northern Thailand, 543
soil density scaling, pore–solid fractal model of, 467
soil enzymes, toxic effect of cadmium and nickel on, and the influence of adding sewage sludge, 377
soil functions, microbial diversity and, 655
soil macropores, mass fractal dimension of, using computed tomography: from the box-counting to the cube-counting algorithm, 569
soil microbial community, measurements of, for estimating the success of restoration, 801
soil microflora, functional diversity of, in primary succession across two glacier forelands in the Central Alps, 685
soil organic matter
  and mineral surfaces, 219
  mean residence time of, associated with kaolinite and smectite, 269
soil solution concentration of Cd and Zn can be predicted with a $CaCl_2$ soil extract, 149
soil structure and pedotransfer functions, 443
soil trophic networks, climatic effects on, and the resulting humus profiles in holm oak (*Quercus rotundifolia*) forests in the High Atlas of Morocco as revealed by correspondence analysis, 767
soil water content and net nitrogen mineralization, defining the relation between, 39
soil/snow N_2O gradient or closed chamber methods, measuring N_2O emissions from organic soils by, 625
solid-state 13C NMR analysis of soil organic matter, two new methods to improve quantitation in (spin accounting and RESTORE), 103
solute diffusion in soil, effects of flooding and redox conditions on, 617
speciation of sulphur in soils and soil particles by X-ray spectromicroscopy, 423
spin accounting and RESTORE – two new methods to improve quantitation in solid-state ^{13}C NMR analysis of soil organic matter, 103
Spodosols, organic carbon dynamics in soil particle-size separates of sandy, when forest is cleared for maize cropping, 257
stabilization of carbon from maize in a sandy soil in a long-term experiment, 117
straw incorporation, modelling carbon and nitrogen dynamics in a bare soil with and without, 555
subsurface flow and runoff within Sahelian microdunes, hydrochemistry of, 531
sulphur in soils and soil particles, speciation of, by X-ray spectromicroscopy, 423
surface analysis of soil material by X-ray photoelectron spectroscopy, 589
surface fractal dimension of soil pores, dependence on image resolution and magnification, 453

temperature effects on N mineralization: changes in soil solution composition and determination of temperature coefficients by TDR, 49
temporal denitrification patterns in different horizons of two riparian soils, 25
temporal variations in nitrification in three arable fields, microbial population dynamics related to, 707
terrae rossae of the Sierra Gádor (Andalusia, Spain), genesis of the, 1
testing the adequacy of measured data for evaluating nitrogen turnover models by the dot-to-dot method, 175
Thailand (northern), soil crusting and infiltration on steep slopes in, 543
thermal conductivity and water content of soils, relationship between, using numerical modelling, 581
toxic effect of cadmium and nickel on soil enzymes and the influence of adding sewage sludge, 377
toxicity factors in acidic forest soils: attempts to evaluate separately the toxic effects of excessive Al^{3+} and H^+ and insufficient Ca^{2+} and Mg^{2+} upon root elongation, 323
transient-flow method, estimation of nitrate retention in a Ferralsol by a, 505
transport and hydraulic properties of the plant–soil system estimated by inverse modelling, 127
tropical forests, humus forms in two secondary semi-evergreen, 17

void structure, water retention and hydraulic conductivity in soil, improved simulation of, with the Pore-Cor three-dimensional network, 477

water content and thermal conductivity of soils, relationship between, using numerical modelling, 581
water flow in soil under irrigation in northern Senegal, experimental and numerical study of: evidence of air entrapment, 491

X-ray attenuation, microaggregates in agricultural soils and their size distribution determined by, 167
X-ray photoelectron spectroscopy, surface analysis of soil material by, 589
X-ray spectromicroscopy, speciation of sulphur in soils and soil particles by, 423

zinc
  and cadmium in soils with scaled exchange coefficients, modelling sorption and mobility of, 387
  and copper, interaction of, with allophane and organic matter in the B horizon of an Andosol, 357
zinc ion adsorption on montmorillonite–Al hydroxide polymer systems, 347
Zn and Cd, soil solution concentration of, can be predicted with a $CaCl_2$ soil extract, 149